## ABSTRACT

A random number generator includes a flip-flop, and a pair of independent free-running oscillators having a respective set of 4 switches controlled with a non-inverted and inverted output of the flip-flop. An output from each of the oscillators is fed back to their respective input via a delay device. The pair of oscillators each has a feedback loop switch, and a pair of cross gate switches, each of which respectively connects an input signal of one oscillator to an output of another oscillator of the pair of oscillators. When the feedback loop switches are open and the cross gate switches are closed, the pair of oscillators forming a flip-flop with positive feedback resolves to a logic state that in a metastable way, producing an unpredictable (random) logic signal.